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REMARKS

Allowable Subject Matter

Claims 33-38, 41-48, 50-54, 62-63, 70, 73-74, 76-77 and 79-80 are allowed.

The Examiner stated that claims 39, 40, 49, 56-61, 75 and 78 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. §112, second paragraph, set forth in the Office Action and to include all of the limitations of the base claim and any intervening claims.

It is respectfully submitted that these claims are allowable for the reasons set forth below with regard to the rejections under 35 U.S.C. §112, second paragraph, below.

Claim Objections

Claim 5 is objected to because of it depends on a cancelled claim.

Regarding claim 5, the claim has been amended to depend from claim 1.

Claim Rejections - 35 USC §112

Claims 1, 3-15, 17-19, 29, 39, 40, 49, 56-61, 75, 78, 81, 83-85 and 90 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states in the Office Action:

"Claims 1,15,29,81,85 and 90, and their respective dependent claims.

The claims recites [sic] "sorter," "rotator," and "comparator." But they fails [sic] to particularly point out what is being sorted, rotated and compared."

Regarding claims 1, 15, 29, 81, 85, and 90, it is respectfully submitted that "sorter," "rotator," and "comparator" are defined terms and are defined in the Applicants' Specification page 10, line 3, through page 11, line 8:

The <u>sorter</u> 800...<u>sorts</u> its <u>data points</u> into <u>cells</u>... the <u>rotator</u> 804 rotates the <u>vectors</u> so that an ideal vector, a vector from the origin to the center of the cell, would be vertical... the <u>comparator</u> 802 <u>compares the error in the x-axis direction</u> to the error in the <u>y-axis direction</u>. [underlining and deletions for clarity]

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The case law holds that what is described in the specification is considered part of the claimed limitation where defined terms are involved. In the recent case of All Dental Prodx, LLC v. Advantage Dental Products, Inc., 309 F.3d 774 (Fed Cir. 2002), the appeal centered on the claim term, "original unidentified mass," which the lower court concluded did not meet the requirements of the first and second paragraphs of 35 USC §112. The CAFC adopted the same claim construction of the lower court but held that the claim term was properly described in the specification and was definite and clear in the claim as a result.

It is well settled that:

"[The] language of the claims, read in light of the specification" is to be considered when determining whether the claims are indefinite. Allen Archery Inc. v. Browning Mfg. Co., 819 F.2d 1087, 2 USPQ2d 1490, 1494 (Fed. Cir. 1987). [insertion for clarity]

Regarding claims 5 and 56, the Examiner states:

"Claims 5 and 56 recite terms σ_x and σ_y that are not defined."

Applicants respectfully disagree. These are also defined terms and have been defined in Applicants' Specification page 11, lines 19-20:

"Where σ_y is the standard deviation in the vertical, or y direction, σ_x is the standard deviation in the horizontal, or x direction, and C is a constant."

With regard to claims 7, 8, 19, and 54, the Examiner states:

"Claims 7.8.19 and 54.

"X/Y deviation" is not defined."

The claimed element is a "X/Y deviation Applicants respectfully disagree. determinator", which is a described element for determining the deviations in an X-Y coordinate system in Applicants' Specification page 12, lines 10-15:

"For each datum point that it receives from the sorter 900, the X/Y deviation determinator 902 determines the magnitude of the vector from the origin to the datum point. The X/Y deviation determinator 902 then uses the standard equation for the arithmetic mean to determine the average magnitude of all the vectors to all four cells. The X/Y deviation determinator 902 then determines the distance of the vector from the origin to the ideal data point for one of the cells."

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Claim 54 is shown as rejected above, but does not contain the above defined element. In addition, claim 54 stands allowed.

With regard to claims 9, 23, 39, 59, and 75, the Examiner states:

"Claims 9,23,39,59 and 75 recite terms " Z_{ave} ", "C" and Z_{exp} " but fails [sic] to define their meanings."

Applicants respectfully disagree. These are also defined terms and have been defined in Applicants' Specification page 12, lines 22-23:

"Where Zavg is the average vector magnitude for all the data points, C is a constant, and Zexp is the magnitude of the ideal vector."

The Examiner has included claim 23 above, but claim 23 was previously canceled.

With regard to claims 12, 26, 49, 61, and 78, the Examiner states:

"Claims 12,26,49, 61 and 78 recite terms such as "Yave[b4]" but fails [sic] to define their meanings."

Applicants respectfully disagree. These are also defined terms and have been defined by mathematical equations for a an average Y-coordinate for cells 1-4 in Applicants' Specification page 13, lines 7-16:

"The X/Y deviation determinator 902 then determines if the following inequalities are true:

$$\begin{split} Y_{\text{avg}}[b_4] < Y_{\text{avg}}[b_3] < Y_{\text{avg}}[b_2] < Y_{\text{avg}}[b_1] \\ Y_{\text{avg}}[b_{-4}] < Y_{\text{avg}}[b_{-3}] < Y_{\text{avg}}[b_{-2}] < Y_{\text{avg}}[b_{-1}]. \end{split}$$

Where b_4 is the cell farthest from the y-axis and b_1 is the cell nearest the y-axis on the right hand side of the constellation. Similarly, b_4 is the cell farthest from the y-axis and b_{-1} is the cell nearest the y-axis on the left hand side of the constellation."

The Examiner has included claim 26 above, but claim 26 was previously canceled.

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With regard to claims 6, 10, 40, 57, and 60, the Examiner states:

"Claims 6,10,40,57, 60 and [sic] are rejected for the same reason for their respective dependence on rejected claims."

Based on the explanations above, it is respectfully submitted that claims 6, 10, 40, 57, and 60 depend from allowable base claims.

Claims 11, 13, and 58 are rejected in this section under 35 USC §112, but are not specifically addressed. Claims 11 and 23 are dependent from claim 7, which depends from 1 and which is believed to be allowable as discussed above. Claim 58 depends from claim 54, which is also believed to be allowable as discussed above.

Based on all of the above, it is respectfully submitted that claims 1, 3-15, 17-19, 29, 39, 40, 49, 56-61, 75, 78, 81, 83-85 and 90 are allowable under 35 U.S.C. §112, second paragraph, because of All Dental Prodx, LLC v. Advantage Dental Products, Inc., supra, Allen Archery Inc. v. Browning Mfg. Co., supra., and the CAFC holding in the recent case of Phillips v. AWH Corp. 03-1269, -1286 (Fed. Cir. July 12, 2005) (en banc) that the Specification provides the meaning of claim terms:

"[O]ur cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs. See CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002). ... the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as dispositive. See SciMed Life Sys., Inc. v, Advanced Cardiovascular Sys., Inc. 242 F.3d 1337, 1343-44 (Fed. Cir. 2001).

Conclusion

In view of the above, it is submitted that the claims are in condition for allowance and reconsideration of the rejections is respectfully requested. Claims 33-38, 41-48, 50-53, 73, 74, 76, 77, 79 and 80 have been allowed. Allowance of claims 1, 3-15, 17-19, 29, 39-40, 49, 54, 56-63, 70, 75, 78, 81, 83-85, and 90 at an early date is solicited.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including any extension of time fees, to Deposit Account No. 50-0374 and please credit any excess fees to such deposit account.

Respectfully submitted,

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